

## **REMARKS**

### **I. Introduction**

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of August 24, 2009 is respectfully requested.

By this amendment, claims 46, 51, 58, 62, 64, 68-71, 74-75, 79, and 82 have been amended, claims 47-50, 83, 85-88, and 90 have been cancelled without prejudice or disclaimer to the subject matter contained therein, and claim 91 has been added. Claims 46, 51-82, 84, 89, and 91 are now pending in the application. No new matter has been added by these amendments.

The specification has been reviewed and revised. No new matter has been added by these revisions. Entry of the specification amendments is thus respectfully requested.

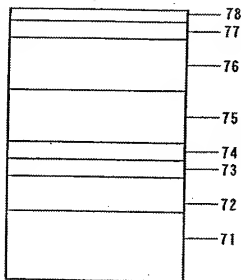
### **II. Prior Art Rejections**

Currently, claims 46-49, 51-55, 59-77, 79-84, and 89 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi et al. (JP 2001256686), claim 50 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi et al. in view of Liang et al. (US 2003/0099903), and claims 56-58 and 78 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi et al. in view of Ko et al. (US 6,051,298).

Claim 46 is patentable over Takahashi et al., Liang et al., and Ko et al. for the following reasons. Claim 46 requires a magnetic recording medium comprising: a disk substrate; a recording film disposed on the disk substrate, the recording film being magnetically anisotropic; a lubricating layer disposed over the recording film; and a protective layer disposed between the lubricating layer and the recording film, the protective layer having a lower thermal conductivity than the recording film, wherein the protective layer comprises a plurality of thin films including

a first thin film and a second thin film, the second thin film being closer to the recording film than the first thin film, wherein the thermal conductivity of the second thin film is higher than the thermal conductivity of the first thin film, and wherein the thermal conductivity of the second thin film is  $2.5 \times 10^5$  erg/(s·K·cm) or lower.

Takahashi et al. discloses a recording media including a substrate (71), a recording film (73), an upper dielectric layer (75), a lower dielectric layer (76), and two lubricating layers (77, 78). (See figure 8 and paragraph 0123 of US 2004/0257920, relied upon as an English equivalent of the Japanese disclosure as explained on page 2 of the Office Action.) On page 2 of the Office Action, the upper and lower dielectric layers (75, 76) are asserted as corresponding to the plurality of thin films of the protective layer recited in claim 46.



**Figure 8 of Takahashi et al. (US 2004/0257920)**

As seen in figure 8, the lower dielectric layer (75) of Takahashi et al. is closer to the recording film (73) than the upper dielectric layer (76). The lower dielectric layer (75) is disclosed as having a thermal conductivity of  $6 \times 10^4$  erg/(s·K·cm) and the upper dielectric layer

(76) is disclosed as having a thermal conductivity of  $3 \times 10^5$  erg/(s·K·cm). (See paragraph 0123). In contrast, claim 46 requires a second thin film being closer to the recording film than a first thin film, wherein the thermal conductivity of the second thin film is *higher* than the thermal conductivity of the first thin film; this is exactly opposite of the configuration of Takahashi et al. in which the layer closer to the recording film has a *lower* thermal conductivity than the layer farther from the recording film. Because Takahashi et al. does not disclose a second thin film being closer to the recording film than a first thin film, wherein the thermal conductivity of the second thin film is higher than the thermal conductivity of the first thin film, Takahashi et al. cannot meet the requirements of claim 46.

Moreover, claim 46 further requires that the thermal conductivity of the second thin film is  $2.5 \times 10^5$  erg/(s·K·cm) or lower, and that the thermal conductivity of the first thin film is lower than that of the second thin film. Accordingly, the thermal conductivity of the first thin film must also be  $2.5 \times 10^5$  erg/(s·K·cm) or lower. As discussed above, Takahashi et al. discloses the upper dielectric layer (76), which corresponds positionally to the first thin film of claim 46, having a thermal conductivity of  $3 \times 10^5$  erg/(s·K·cm). Because Takahashi et al. does not disclose the thermal conductivity of the second thin film is  $2.5 \times 10^5$  erg/(s·K·cm) or lower and the thermal conductivity of the first thin film being less than that of the second thin film, Takahashi et al. cannot meet the requirements of claim 46.

Applicants submit that there would have been no reason to modify any of the prior art of record to yield a configuration meeting the above-discussed requirements of claim 46. It is thus submitted that the invention of the present application, as defined in claim 46, is not anticipated nor rendered obvious by the prior art, and yields significant advantages over the prior art. Allowance is respectfully requested.

Claims 51-82, 84, 89, and 91 depend, directly or indirectly, from claim 46 and are thus allowable for at least the reasons set forth above in support of claim 46.

In view of the foregoing amendments and remarks, inasmuch as all of the outstanding issues have been addressed, Applicants respectfully submit that the present application is now in condition for allowance, and action to such effect is earnestly solicited. Should any issues remain after consideration of the response, however, the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

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